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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,362	06/02/2006	Peter Huntemann	291262US0PCT	3631

22850 7590 06/26/2008

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EXAMINER	
WOOD, ELLEN S	

ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
06/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/581,362	HUNTEMANN ET AL.	
	Examiner	Art Unit	
	ELLEN S. WOOD	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/02/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 11, 13-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 and 6-10 of copending Application No. 11/579591. Although the conflicting claims are not identical, they are not patentably distinct from each other because they discuss the formation of syntactic polyurethane obtained by reacting a polyisocyanate component, a polyol component, and chain extenders in the presence of hollow microspheres. The claims also incorporate similar weight percentages, the method of producing offshore pipes, and offshore pipes.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 16 provides for the use of ***"insulating offshore pipes",*** but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 16 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 11, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Bartz et al. (US 6,790,537, hereinafter "Bartz").

In regards to claim 11, Bartz discloses a composite element structure with a polyisocyanate polyaddition product (ii) (col. 1 lines 5-10), which are usually polyurethanes (col. 2 lines 37-39). The (ii) is the combination of polyisocyanate with compounds that are reactive toward isocyanates (col. 1 lines 10-13). The compounds that are reactive toward isocyanates are those consisting of polyols selected from the group consisting of polyether polyalcohols (polyether polyol) (col. 4 lines 39-44). The (ii) are prepared by reacting (a) isocyanates with (b) compounds which are reactive toward isocyantes in the presence of (c) and also, if desired, (d) catalysts and/or (e) auxiliaries and/or additives (col. 3 lines 47-52). The component (b) is preferably a mixture (col. 6 lines 19-20). The first component (b1) is a polyether polyalcohol has a mean functionality of from 1.5 to 2.99 and a mean molecular weight of from 400 to 8000 g/mol (col. 6 lines 21-23). The second component (b2) is a polyether polyalcohol having a mean functionality of from 3 to 5 and a mean molecular weight from 150 to 8000 g/mol (col. 6 lines 25-29). In addition chain extenders (b3) may be added in addition to the other components (col. 5 lines 45-50). Preferred fillers may also be added to the preparation (ii) such as hollow glass microspheres (col. 8 lines 24-26).

In regards to claim 14, Bartz discloses that (b1) is present in the amount from 40 to 98% by weight, (b2) is present in the amount from 1 to 30% by weight, and (b3) is present in the amount of 1 to 30% by weight, where the weights indicated are in each case based on the weight of the sum of the polyol component (col. 8 lines 44-58).

In regards to claims 15, Bartz discloses a composite element structure with a polyisocyanate polyaddition product (ii) (col. 1 lines 5-10), which are usually polyurethanes (col. 2 lines 37-39). The (ii) is formed by the method of the combination of polyisocyanate with compounds that are reactive toward isocyanates (col. 1 lines 10-13). The compounds that are reactive toward isocyanates are those consisting of polyols selected from the group consisting of polyether polyalcohols (polyether polyol) (col. 4 lines 39-44). The (ii) are prepared by reacting (a) isocyanates with (b) compounds which are reactive toward isocyantes in the presence of (c) and also, if desired, (d) catalysts and/or (e) auxiliaries and/or additives (col. 3 lines 47-52). The component (b) is preferably a mixture (col. 6 lines 19-20). The first component (b1) is a polyether polyalcohol has a mean functionality of from 1.5 to 2.99 and a mean molecular weight of from 400 to 8000 g/mol (col. 6 lines 21-23). The second component (b2) is a polyether polyalcohol having a mean functionality of from 3 to 5 and a mean molecular weight from 150 to 8000 g/mol (col. 6 lines 25-29). In addition chain extenders (b3) may be added in addition to the other components (col. 5 lines 45-50). Preferred fillers may also be added to the preparation (ii) such as hollow glass microspheres (col. 8 lines 24-26).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 12-13 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartz et al. (US 6,790,537, hereinafter "Bartz") in view of Lively (US 36,527,015).

In regards to claims 12-13, Bartz discloses that the polyol can have a constituent that is a polyether polyalcohol having a mean functionality of from 3 to 5 and a mean molecular weight from 150 to 8000 g/mol (col. 6 lines 25-29). The polyol is a mixture of at least two of the constituents disclosed by Bartz (col. 4 lines 39-49). The polyether polyalcohols used in the polyol are advantageous because they improve resistance of the polyisocyanate polyaddition products to hydrolytic cleavage and lower viscosity (col. 5 lines 22-25). Bartz is silent with regards to the polyol having a fourth additional constituent and the specified viscosity.

It would be obvious to one of ordinary skill in the art that the addition of a fourth constituent to the polyol would be advantageous to improve resistance of the polyisocyanate polyaddition products to hydrolytic cleavage and lower viscosity, which would be advantageous in forming the composite elements more quickly and simply. The viscosity of the polyol produced by Bartz would be comparatively similar to that disclosed by the applicant, because the polyol produced is advantageous due to its low viscosity and also the polyol of Bartz is composed of similar polyether polyol constituents as claimed by the applicant.

In regards to claims 16-19, Bartz discloses polyisocyanate polyaddition products as described in the previous section. The polyisocyanate polyaddition products

disclosed can be combined with additional layers to form a multilayered composite element (col. 1 lines 5-19). The layer of polyisocyanate polyaddition product is from 10 to 300 mm thick (col. 1 lines 9-10). The composite articles composite articles formed are advantageous in respect of their weight, manufacturing process and maintenance intensity (col. 1 lines 51-53). The composite elements have improved adhesion which gives a more stable and more durable structural element (col. 10 lines 54-55). They have an improved resistance to hydrolysis (col. 1 lines 55-56). The composite elements have excellent mechanical properties and very large dimensions are obtainable (col. 1 lines 59-62). The composite elements are used in areas which withstand large forces (col. 10 lines 56-58). The composite element has reduced crack propagation due to the increased amount of energy absorption (col. 10 lines 22-25). The composite articles have increased corrosion protection (col. 10 lines 19-21).

Bartz is silent with regards to the use of the polyisocyanate polyaddition product in offshore pipes and the formation of the offshore pipe.

Lively discloses using syntactic polyurethane as insulation (col. 5 lines 55-58) for pipes that are used as pipelines submerged in water (col. 7 lines 14-15).

It would be obvious to one of ordinary skill in the art that syntactic polyurethane composite elements disclosed by Bartz would be excellent for the use of offshore pipes. The composite articles of Bartz would be able to withstand the harsh conditions of the subsea depths. The articles would also provide excellent corrosion protection, impact strength, durability and flexibility, plus excellent adhesion to the raw pipe. Also, the

composite articles are comparatively light weight, thus the articles would be easier to ship and lay.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELLEN S. WOOD whose telephone number is (571)270-3450. The examiner can normally be reached on Monday-Friday 7-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ellen S Wood
Examiner
Art Unit 1794

/Carol Chaney/
Supervisory Patent Examiner, Art Unit 1794